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Starting Relationships with Neighbors After a Move Later in Life: An Exploratory Study

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The authors examined eight personal and contextual conditions associated with starting new relationships with neighbors after short- and long-distance moves. A total of 625 Dutch movers and 1,936 non-movers (57–93 years old) were selected from the Longitudinal Aging Study Amsterdam. OLS linear regression analyses showed that short-distance movers mainly started relationships with neighbors when they did volunteer work. Long-distance movers who moved to rural areas and felt safe in their new neighborhood or moved to areas with lower priced homes also started new relationships with neighbors. Contextual conditions appear to play a larger role than personal ones, especially after long-distance moves.

KEYWORDS *neighbors, relationship change, neighbor relationships, moving, new relationships*

Using a unique longitudinal study on Dutch older adults who live independently (Huisman et al., 2011), we explore the personal and contextual conditions that play a role in new relationships with neighbors after a move later in life. To our knowledge, no research has been conducted on the conditions contributing to the development of these relationships, but we know that many relationships with neighbors are lost and replaced after a move (Bloem, Van Tilburg, & Thomése, 2008a), and that older adults establish new relationships after important life events (Lamme, Dykstra, & Broese van Groenou, 1996). We assume that new relationships depend on personal

This study is based on data collected in the context of the Longitudinal Aging Study Amsterdam, a program conducted at VU University Amsterdam and largely funded by the Ministry of Health, Welfare and Sports, Directorate of Long-Term Care.

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and contextual conditions. Personal conditions derive from the relationship partners themselves, such as sex, age, marital status, and health. Contextual conditions derive from the social and physical context in which the relationship exists (Sias & Bartoo, 2007). The context entails opportunities for interaction during local activities, such as walking or volunteering, or specific characteristics of a neighborhood that facilitate or inhibit interpersonal interaction, such as safety or degree of urbanization. Neighborhood characteristics can be relevant to developing relationships with neighbors who are closely linked to the social and physical residential environment.

Neighborhood and Neighbors

We conceive a neighborhood as more than the few blocks around the home. Following Statistics Netherlands (1991), we define neighborhoods as spatial units considered entities on morphological or socioeconomic grounds distinguishing them from other spatial units. The identification of neighborhood boundaries is often difficult because various spatial and interactional patterns characterizing a neighborhood, such as social networks and interaction or the distribution of social characteristics, may not have one clear boundary (Sampson, 2004). In 2010, the average population of the approximately 1,000 neighborhoods in the Netherlands was 1,439, with a standard deviation of 2,040 and a range from 0 to 26,680. Dutch neighborhoods differ from those in the United States because the Netherlands is one of the world's most densely populated countries with a high degree of urbanization. As a result, the Dutch do not have to travel as far as Americans to visit people they know.

In this study, we did not provide respondents with a definition of the neighborhood. We assume that people generally experience the unit they live in as their neighborhood. Based partly on its size, people have different ideas about the identification of their neighborhood (Kaal, Vanderveen, & McConnell, 2008): some neighborhoods are small, others are larger. Although physical proximity is the strongest predictor of starting relationships with neighbors (Hipp & Perrin, 2009), people might view others who do not live in their neighborhood as locals if they live in an adjoining neighborhood and the geographical distance is small. The term *neighborhood* is rooted in the verb *neighbor* (Smith, 2010). "To neighbor" expresses the essence of neighborhood because it refers to the neighborhood or vicinity of other people, as well as the content of neighbor relationships. Neighbor relationships are diverse and typically consist of small talk, chatting about neighborhood matters, lighter forms of instrumental help, and the exchange of small items (Lelieveldt, 2004; Thomése, Van Tilburg, & Knipscheer, 2003).

For several reasons, neighbors are important to older people who move. First, after the move, neighbors serve as a source of knowledge, such as up-to-date information on neighborhood activities or how to locate necessary

resources (Unger & Wandersman, 1985). Therefore, older adults who move can get to know their new neighborhood through their neighbors. Second, neighbors can be a source of help in different situations, lending tools, taking care of pets and plants during vacations, or giving support in emergencies (e.g., providing a ride to the first aid post after an accident) (Litwak & Szelenyi, 1969). Third, neighbors are an important part of older adults' networks (Cornwell, Laumann, & Schumm, 2008); for frail elderly people in particular, neighbors are a source of contact and social support (Barker, 2002). A Dutch study by Brekelmans (2008) revealed that older adults are the smallest group (4%) of the people who do not meet or know their neighbors and the largest group (39%) of those with a key to the neighbor's house. Neighbors are even more important to older people than friends or fellow members of their organizations (Gray, 2008).

Moving and Neighbor Relationships

Neighbor relationships can change, especially when people move (Wellman, Carrington, & Hall, 1988). Research findings among younger groups show inconsistencies. Van Busschbach (1996) observed a short- and long-term decline in the frequency of contact with neighbors after a move. Other researchers observed no indication of the discontinuation of informal social relationships in the neighborhood after a voluntary or involuntary move. In one study, female movers exhibited heightened social interaction in the new place of residence shortly after the move (Butler, McAllister, & Kaiser, 1973), and another study revealed that older adults who moved after their spouse died started new neighbor relationships (Lamme et al., 1996).

We use the social convoy model of Kahn and Antonucci (1980) to explain the formation of new relationships after a move. The convoy model is a lifespan developmental model of social networks and social support based on role and attachment theories. Each person moves through life surrounded by a convoy, which is a set of people he or she is related to via an exchange of social support. The convoy is conceived as concentric circles representing different levels of closeness to the focal person. The closer relationships in the inner circle—the core relationships—are mostly determined by attachment (family and friends). The relationships in the outer circles—role relationships—are determined more by role requirements usually linked to specific settings, such as the neighborhood or work place. Given that needs and circumstances change as people move through life, the composition of the convoy changes as well (e.g., with health decline or loss of a spouse). Neighbor relationships are typical role relationships linked to the role setting, which limits their duration. A change in the role setting, such as a move, means the discontinuation of the contact with former neighbors and possible replacement by similar others near the new home. Given the importance of neighbors to older adults, the continuity theory (Atchley,

1989) predicts that older adults will start new neighbor relationships after they move. The continuity theory states that older adults maintain the same activities, behavior, and relationships they had earlier in life. In terms of this study, we expect older adults to restore their network structure by starting new neighbor relationships to compensate for the lost ones.

Conditions

We explore several personal and contextual conditions covering a variety of behaviors and opportunities below. We focus on opportunities for meeting people and on older people's ability to take advantage of these opportunities. People need to spend enough time in their neighborhood and wider residential area to meet others, and there has to be a sufficient number of people in the area who are eligible as relationship partners (Völker & Flap, 2007).

PERSONAL

An important condition for developing new relationships with neighbors is the ability to go out and meet people. Health issues can make this difficult (Bukov, Maas, & Lampert, 2002), especially sensory problems, which are common in an older population. Crews and Campbell (2004) studied hearing and visual impairments and reported that older people with hearing loss find it difficult to engage in activities and have contact with others. Hearing impairments, the first condition, may be a barrier to going out on the street, attending meetings, and talking to people.

Health issues can also make it hard to engage in physical activities, the second condition, such as gardening, bicycling, or walking. Bicycles are widely used in the Netherlands for transportation, shopping, or leisurely bike rides and sports. The main activities of older Dutch adults are walking and bicycling (Dutch Council of Recreation, 2003), and the urban and rural areas in the Netherlands have more adequate bicycle paths than the United States (Pucher & Buehler, 2008). Dutch people older than 75 years make roughly half of their trips on foot or by bike (Pucher & Dijkstra, 2003).

A third condition is proximity to adult children, which is an important reason for older people to move (Longino, Bradley, Stoller, & Haas, 2002). Although adult children do not provide as many opportunities for social interaction as young children would (e.g., schools or playgrounds), adult children living in the new neighborhood can help their newly arrived parents get acquainted with neighbors from the child's network, who in turn can facilitate other relationships with neighbors.

CONTEXTUAL

Good places to meet like-minded people are athletic, cultural, or senior citizens' clubs, churches or voluntary organizations, such as unions or political parties, where people from the vicinity participate (Bloem et al., 2008a). The

fourth condition is volunteer work. Older adults spend more time doing volunteer work than younger adults (Mellor et al., 2008), and this is particularly true in the church context (Van Willigen, 2000). Isham, Kolodinsky, and Kimberly (2006) found that adults benefit socially from actively doing volunteer work in organizations, and this is probably true of older adults as well.

Older adults may move to adapted housing, the fifth condition, such as homes in the community with special adaptations. Older adults move there if they need more support or care, are in poor health, receive insufficient help from children in the immediate vicinity (Litwak & Longino, 1987), or if their spouse dies (Bloem, Van Tilburg, & Thomése, 2008b). It may be easier to start new neighbor relationships because they are surrounded by peers there.

As to the availability of potential neighbors, neighborhoods differ with regard to opportunities for socializing. Feeling unsafe in the neighborhood, the sixth condition, may keep people from going out, in particular on foot or by bicycle, and make it less likely for them to participate in activities or meet others on the street (Silverman & Kennedy, 1985; Van Lenthe, Brug, & Mackenbach, 2005). Fear of crime appears to be a better predictor of physical inactivity than actual crime rates (Sooman & McIntyre, 1995), and older adults are particularly apt to feel unsafe (Foster & Giles-Corti, 2008).

Urban areas have numerous amenities that draw people into town (Thomése & Van Tilburg, 2000); grocery stores, libraries, medical centers, and restaurants are easily accessible because distances are short and transportation facilities are good (Logan & Spitze, 1994). People are drawn to more activities outside the immediate vicinity than is the case in rural settings. This suggests that older people in urban areas focus less on their neighbors (Blokland-Potters, 2003) than in rural areas. We view the degree of urbanization as the seventh condition.

There may be differences regarding the economic level of neighborhoods, the eighth condition. This pertains to the price of homes, one of the strongest measures of economic level (Hipp & Perrin, 2009). People who are wealthier depend less on neighborly social support and may be more accustomed to social activities at a variety of places outside the immediate vicinity (Wenger, 1991). This would make people in less wealthy neighborhoods more inclined to socialize with their new neighbors.

We examine eight conditions in a longitudinal Dutch sample where older adults described their personal relationships, hearing impairments, engaging in physical activities, proximity to adult children, volunteer work, adapted housing, feelings of safety, and the degree of urbanization and economic level of the neighborhood. Via the longitudinal design, we studied relationships with neighbors before and after moving. Because relationships also change for other reasons, we compared a group of movers with a group of non-movers to isolate the effects of moving as the dominant process. In the control group of non-movers, we expected fewer changes. We also

differentiated the moving distance, assuming that the greater the moving distance, the less likely it was that older adults would keep in touch with their former neighbors. Long-distance movers no longer share the amenities (e.g., athletic clubs, community centers, churches) in the neighborhood and are less likely to run into their former neighbors by accident. Older adults have to look for new amenities in the new neighborhood, which can increase the likelihood of meeting their new neighbors there.

METHOD

Respondents

Data are from the Longitudinal Aging Study Amsterdam (LASA) (Huisman et al., 2011). This program used a stratified random sample of men and women born from 1908 to 1937 that represented the older Dutch population. The oldest participants, particularly the oldest men, were overrepresented in the sample, which resulted in approximately the same number of men and women. The sample was drawn from population records of 11 municipalities: the city of Amsterdam and two rural communities in the west of the Netherlands, one city and two rural communities in the south, and one city and four rural communities in the east. They represented the differences in religion and urbanization in the Netherlands at the time. The LASA sample was initially recruited for the Living Arrangements and Social Networks of Older Adults research program (Knipscheer, De Jong Gierveld, Van Tilburg, & Dykstra, 1995). For the first observation in 1992 (T0; $N = 3,805$), the cooperation rate was 62%. Follow-ups were performed in 1992–1993 (T1; $N = 3,107$), 1995–1996 (T2; $N = 2,545$), 1998–1999 (T3; $N = 2,076$), 2001–2002 (T4; $N = 1,691$), 2005–2006 (T5; $N = 1,257$), and 2008–2009 (T6; $N = 985$). In 2002, a new sample was taken in the context of LASA (born in 1938–1947, $N = 1,002$); we assigned T4 to this observation. The new cohort followed the same sampling frame as the earlier cohort with a cooperation rate of 62%. Follow-ups were performed in 2005–2006 ($N = 908$) and 2008–2009 ($N = 833$); these parallel T5 and T6. In each wave, the interviewers received a 4-day training course and were supervised intensively by the LASA field work manager. The interviewers tape-recorded the interviews to monitor and enhance the quality of the data obtained. The interviews took between an 1.5 and 2 hours.

In the first step, we selected 625 respondents who moved to independent housing between the observations T1 and T6. This number was achieved by counting the number of respondents who moved between T1 and T2 ($n = 185$), T2 and T3 ($n = 125$), T3 and T4 ($n = 73$), T4 and T5 ($n = 145$), and T5 and T6 ($n = 97$). For respondents who moved several times, we selected the first move. Furthermore, we selected 1,936 non-movers. For these respondents, we randomly selected a set of two consecutive observations. The average age of the 2,561 respondents was 71.2 years (range =

57–93, $SD = 8.3$ years) at the follow-up observation. Most (65%) were married, but 24% were widowed, 7% were divorced, and 5% were unmarried; and 70% had a partner. The procedure yielded subsamples of movers and non-movers who differed in the following characteristics: sex ($\chi^2_{(1)} = 8.0, p < .01$; 55% of the movers were women, 45% of the non-movers were men), average age (mean = 72.0 years for movers and 71.0 years for non-movers, $t_{(2559)} = 2.6, p < .01$), and marital and partner status ($\chi^2_{(3)} = 13.9, p < .001$ and $\chi^2_{(1)} = 12.6, p < .001$, respectively). More of the movers were divorced or widowed, and more of the non-movers were married.

We excluded the respondents who died before the first follow-up ($n = 700$), were unable to participate in the study due to severe physical or mental health problems ($n = 123$), refused to do another interview ($n = 462$), or moved to another country or to an unknown address ($n = 72$). Due to the short follow-up time, we excluded respondents who moved between T0 and T1 ($n = 98$), lived in a care facility at baseline ($n = 55$), or moved to a care facility after baseline ($n = 365$). Our focus was not on institutionalization. Longitudinal data on the personal network were missing for 121 respondents who moved after baseline and 250 respondents who did not move due to the premature termination of an interview, the use of an abridged version of the questionnaire or a telephone interview at a specific observation, or a proxy for respondents too physically or cognitively frail to be interviewed with the full questionnaire.

Measurements

PERSONAL NETWORK

To obtain adequate information on the neighbor relationships of older adults, they were first asked to provide detailed information on their relationships and identify their network members by name. The main objective was to identify a network of the older adults' socially active relationships in the core and role network (Van Tilburg, 1998). Respondents named network members in seven domains: household members (including their spouse or partner if there was one), children and their spouses, other relatives, neighbors, coworkers, fellow club members (athletic, church, or political clubs), and others (friends and acquaintances). With respect to the domains, respondents could "name the people (e.g., in your neighborhood) you have frequent contact with and who are important to you." People could only be named once, so a person first named as a relative could not reappear as a neighbor. Using this procedure to elicit descriptions of networks, our focus was on personal relationships in general, including potential providers of social support. Only people older than 18 years could be named. Interviewers gathered information on all the network members with regard to the type of relationship they have with the respondent. We defined neighbors as people named as neighbors or as people known from the neighborhood.

New neighbors are identified after but not before moving. To detect lost and new relationships, we compared the names of all the network members in the various observations and linked them whenever possible.

Respondents had an average of 15.6 members in their network ($SD = 9.1$; range = 1–67); they originated from the seven domains noted above and included kin and non-kin. The average number of neighbors was 1.8 ($SD = 2.1$; range = 0–16) at the first set of two consecutive observations (i.e., T1 and T2, T2 and T3) and 2.0 ($SD = 2.2$; range = 0–20) at the second set of observations. Between the two selected consecutive observations, older adults maintained about half their neighbor relationships (mean = 0.9) and had lost half of them (mean = 0.9); they had started an average of 1.0 new neighbor relationships at the second observation.

MOVES

On the basis of the respondent's address, at each observation we assessed whether a respondent had moved in the previous 3 years. The distance of the move was ascertained using Google Maps on the basis of the addresses before and after the move, and measured in kilometers and travel time by car.

PERSONAL CONDITIONS

Hearing and Physical Activities. Respondents were asked whether they could hear well, and values ranged from 1 (poor) to 4 (good). A majority (67%) had good hearing. Respondents were also asked whether they walked, biked, or gardened regularly, all activities typically conducted close to the home, and a majority (94%) confirmed that they did.

Children. For those with adult children (90%), the amount of time it took to travel to each child with the transportation the respondent usually used was the assessed travel time between parents and children. The type of transportation depended on the respondents' preference. Travel time to the nearest child ranged from no travel time to 24 hours or more, with an average of 22 minutes; 52% had children living within a travel distance of 10 minutes or less, which is a distance of approximately 10 km.

CONTEXTUAL CONDITIONS

Volunteer Work. The respondents could be involved in athletic, cultural, or senior citizens' clubs or voluntary organizations, such as a union or church. Apart from asking whether they were members of clubs, we asked whether they did volunteer work at one or more of the clubs. Of all respondents, 34% did volunteer work. We also asked whether respondents were church members and, if so, how often they attended church (this ranged from once a year to once a week or more often). More than half of the respondents

(59%) were church members. Almost half of the church members attended church once a week or more.

Adapted Housing. The interviewer could classify the type of housing: 88% of the respondents lived in regular housing (e.g., attached row, detached, apartment building) and 12% in housing adapted for older adults (e.g., near an institution with special services available).

Feeling Safe. Respondents were asked whether they felt safe in the evening in their neighborhood, and 85% confirmed that they did.

Urbanization and Economic Level. The level of urbanization in the neighborhood was divided into five classes, ranging from not urban (less than 500 addresses in each square kilometer) to highly urban (more than 2,500 addresses); 22% of participants lived in a highly urbanized area. The economic level was measured by the mean value of the homes in a neighborhood, ranging from 76,000 to 647,000 Euros (after correction for inflation), with an average of 222,000 Euros. The data on the level of urbanization and neighborhood economic level originate from a database provided by Statistics Netherlands (Den Dulk, Van de Stadt, & Vliegen, 1992).

PROCEDURE

We conducted OLS linear regression analyses on the number of new relationships with neighbors and stratified the analysis by the distance of the move: non-movers, movers within a distance of 10 km (short distance), and movers over a distance of 10 km (long distance). The 10-km boundary used to distinguish short- and long-distance movers was arbitrary but identified the movers who mainly had to turn to another area for shops and services because 10 km is a significant distance in the Netherlands. Furthermore, if people move a short distance, they can stay in touch and continue their relationships with former neighbors as neighbor relationships. If they move a longer distance, relationships with former neighbors might be continued in the form of acquaintanceships or friendships. We controlled for the number of neighbors lost, sex, age, and partner status. Because the distribution was skewed, we focused on the natural log of the numbers of neighbors gained and lost. The difference in the strength of the regression effects across the three groups of non-movers and short- and long-distance movers was tested by computing z values.

RESULTS

The 625 movers moved an average distance of 18 km, which is equivalent to 17 minutes by car. Most of the movers ($n = 464$) made a short-distance move (some moved to the house next door); 161 moved 10 km or more, with a maximum of 318 km. Of the total movers, 424 moved to regular housing

(e.g., attached row or detached housing) and 201 to housing adapted for older people (e.g., apartment buildings with services). Most of the movers to adapted housing came from regular housing. Of the non-movers, 94% lived in regular housing (Table 1).

On average, long-distance movers started more new neighbor relationships (mean = 1.5) than non-movers and short-distance movers (mean = 1.0 and 1.0, respectively); this is equivalent to an average of 0.64 for the natural log of the number of new neighbor relationships reported (Table 1). Both short- and long-distance movers lost more neighbor relationships on average than non-movers (mean = 1.1, 1.1, and 0.8, respectively). Therefore, non-movers increased their number of neighbor network relationships significantly ($t_{(1935)} = -2.9$, $p < .01$); the number did not change for short- and long-distance movers ($t_{(463)} = -1.6$, $p > .05$, and $t_{(1936)} = -1.4$, $p > .05$, respectively).

As Table 1 shows, the three groups differ on many characteristics. Short-distance movers were frequently women, old, moved from regular to adapted housing, attended church services every week, and moved to areas with lower priced homes. Long-distance movers rarely had adult children living near their new home. They were not very involved in volunteer work and church services and generally moved to less urbanized areas. Compared with non-movers, fewer short- and long-distance movers had a partner. In the 3 years between the observations among the non-movers ($N = 1,936$), 1% started a new partner relationship and 5% lost their partner, predominantly due to their death. Among the movers ($N = 625$), 2% started a new partner relationship and 7% lost their partner, predominantly due to their death, which differs significantly from the non-movers ($\chi^2_{(2)} = 9.3$, $p < .01$). The other variables, physical activities, hearing, and feeling safe, were not associated with moving.

Table 2 shows the results of the regression of starting new neighbor relationships in the personal network. Because changes among the non-movers are probably related to numerous other events, we did not expect much change to be specifically associated with the personal and contextual conditions included in this study. This is confirmed by the small R^2 ; the non-movers do not fit well into the model. Any change might reflect a natural circulation in the neighbor network. It means contact diminished with some neighbors and increased with others with approximately the same characteristics (Starker, Morgan, & March, 1993; Van Tilburg, 1998). The more neighbor relationships were lost, the fewer new neighbor relationships started between the two consecutive observations, suggesting a reduction in the neighbor network of some non-movers. On average, non-movers with children living nearby had a lower score of 0.10 on the natural log of the number of new neighbor relationships, which can be translated into starting an estimated 1.52 relationships compared with 1.68 among those with no

TABLE 1 Descriptives of the Sample According to Moving Distance

	Did not move (<i>n</i> = 1,936)		Moved within 10 kilometers (<i>n</i> = 464)		Moved farther away (<i>n</i> = 161)		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
New neighbors (LN; 0–2.5)	0.47	0.60	0.49	0.62	0.64	0.70	$F = 6.4^{**}$
Neighbors lost (LN; 0–3.0)	0.41	0.57	0.54	0.60	0.55	0.59	$F = 12.6^{***}$
Female (vs. male)	49%		56%		52%		$\chi^2 = 8.6^*$
Age (57–93)	70.95	8.40	72.57	8.17	70.49	7.78	$F = 7.7^{***}$
With a partner (no-yes)	72%		63%		67%		$\chi^2 = 12.5^{**}$
Hearing (1–4)	3.57	0.75	3.53	0.73	3.68	0.62	$F = 2.6$
Walks, cycles, gardens (no-yes)	94%		94%		93%		$\chi^2 = 0.6$
Child living nearby (no-yes)	52%		59%		37%		$\chi^2 = 24.2^{***}$
Volunteer work (no-yes)	36%		34%		24%		$\chi^2 = 11.1^{**}$
Attends church weekly (no-yes)	35%		45%		25%		$\chi^2 = 25.1^{***}$
Lives in adapted housing (vs. regular)	6%		37%		19%		$\chi^2 = 346.5^{***}$
Feels safe (no-yes)	86%		83%		84%		$\chi^2 = 2.8$
Highly urbanized area (no-yes)	22%		21%		14%		$\chi^2 = 6.2^*$
Price of homes (0.8–6.5 × 100,000 euro)	2.24	0.83	2.13	0.78	2.24	0.79	$F = 3.7^*$

Note. LN = natural log

* $p < .05$; ** $p < .01$; *** $p < .001$.

TABLE 2 OLS Linear Regression of Number of New Neighbors (LN)

	Did not move (<i>n</i> = 1,936)			Moved within 10 kilometers (<i>n</i> = 464)				Moved farther away (<i>n</i> = 161)			
	<i>B</i>	<i>Beta</i>	<i>t</i>	<i>B</i>	<i>Beta</i>	<i>t</i>	<i>z</i>	<i>B</i>	<i>Beta</i>	<i>t</i>	<i>z</i>
Constant	0.40			0.64				0.07			
Neighbors lost (LN; 0–3.0)	–0.05	–0.05	–2.3*	0.13	0.13	2.8**	–3.5***	0.16	0.14	1.8	–2.3*
Female (vs. male)	0.04	0.03	1.3	0.10	0.08	1.6	–0.9	0.05	0.03	0.4	–0.1
Age (57–93)	0.00	0.00	–0.1	0.00	–0.05	–1.0	0.9	0.00	0.03	0.3	–0.3
With a partner (no-yes)	0.03	0.03	1.0	0.02	0.01	0.2	0.2	0.08	0.05	0.6	–0.3
Hearing (1–4)	0.00	0.01	0.2	0.00	–0.01	–0.1	0.2	–0.02	–0.01	–0.2	0.2
Walks, cycles, gardens (no-yes)	0.02	0.01	0.4	–0.14	–0.05	–1.2	1.2	0.37	0.14	1.7	–1.5
Child living nearby (no-yes)	–0.10	–0.08	–3.6***	0.01	0.01	0.2	–1.7	0.00	0.00	0.0	–0.8
Volunteer work (no-yes)	0.03	0.02	0.9	0.22	0.17	3.3***	–2.7**	–0.06	–0.04	–0.5	0.6
Attends church weekly (no-yes)	0.03	0.03	1.1	0.09	0.07	1.5	–0.9	0.05	0.03	0.4	–0.1
Lives in adapted housing (vs. regular)	0.07	0.03	1.1	0.00	0.00	0.0	0.7	–0.03	–0.02	–0.2	0.6
Feels safe (no-yes)	0.06	0.03	1.4	0.08	0.05	1.0	–0.2	0.41	0.21	2.5*	–2.1*
Highly urbanized area (no-yes)	–0.11	–0.08	–3.2**	0.00	0.00	0.0	–1.4	–0.53	–0.27	–3.4***	2.6**
Price of homes (0.8–6.5 × 100,000 euro)	0.01	0.01	0.5	–0.02	–0.02	–0.4	0.6	–0.15	–0.17	–2.2*	2.2*
R ²	0.02			0.08				0.18			

Notes. Unstandardized (*B*) and standardized (*Beta*) effects; *t*-values are applied for testing significance of effects; *z*-values are applied for testing the difference with the effect among non-movers. LN = natural log.

p* < .05; *p* < .01; ****p* < .001.

children or children living farther away. Older adults in less urban areas started 0.17 more relationships than older adults in other areas.

The fit of the model for short-distance movers is better ($R^2 = .08$). More lost neighbor relationships meant more new relationships. The effect is significantly stronger ($z = -3.5$) than for non-movers, indicating that movers replaced what they lost. The estimates reveal that, controlled for all other characteristics, a mover who did not lose any neighbor relationships (probably because he did not have any) started 1.51 neighbor relationships, whereas a mover who lost 2 relationships started 1.75 neighbor relationships. Older adults who moved a short distance and did volunteer work started 0.37 relationships more than those who did not do volunteer work. This effect is significantly stronger than among non-movers ($z = -2.7$).

The model for long-distance movers shows an even better fit ($R^2 = .18$). Similar to the case of short-distance movers, the effect of the number of neighbors lost was positive, indicating that movers largely replaced former neighbor relationships. The estimated gain for a mover who had not lost any neighbor relationships is 1.74 neighbor relationships, whereas the estimated gain is 2.08 for a mover who had lost 2 neighbor relationships. In particular, contextual conditions predicted the start of new neighbor relationships. Older people who felt safe in their new neighborhood started an average of 0.68 more relationships than those who felt unsafe. People who moved to less urbanized areas started 0.85 more relationships than those who move to a city, and people in neighborhoods with lower priced homes (we took the first quartile to compute the estimate) started 0.23 more neighbor relationships than those in neighborhoods where prices were higher (the third quartile). The four effects were significantly stronger than among non-movers as indicated by the z values.

DISCUSSION

Starting new neighbor relationships after a move is thought to contribute to older adults' well-being and social support potential. We have studied several conditions that can influence the start of new neighbor relationships after a move. In our study, the average number of neighbors in older adults' personal networks is approximately two. This is similar to the results of other studies (Völker & Flap, 2007) but lower than the results of a study examining all proximate relationships (Hampton, 2007). Our respondents identified their neighbors exclusively by their role as neighbor, and kin and friends were excluded. These neighbor relationships had to fit the criteria of taking place on a regular basis and being important, suggesting that they are enduring and have a social support potential for the older adults.

The personal conditions we selected reflect the older adults' ability to leave the home and meet people, and the contextual conditions for

undertaking these activities. Regardless of the distance of the move, movers lost more neighbor relationships than non-movers, and long-distance movers started the highest number of new relationships with neighbors. This compensation for lost relationships confirms our starting point in continuity theory (Atchley, 1989), which predicts that people restore lost relationships after a move. In explaining the differences in the number of new neighbor relationships after a move, we found four conditions to be important, which were all contextual: volunteer work, feeling safe, degree of urbanization, and economic level. However, their importance varied across the short- and long-distance movers.

Volunteer work increased the likelihood of short-distance movers starting neighbor relationships. This confirms the importance of volunteer work for maintaining personal relationships later in life. Curtis, Grabb, and Baer (1992) studied membership in voluntary organizations among all age groups and observed that middle-aged and older people, in particular, were members of voluntary organizations. Bukov et al. (2002) also observed that very old individuals are active, although their activities are less demanding than they were at a younger age. Therefore, doing volunteer work seems important for older adults in a broad age range. Short-distance movers may already have been members of an organization and continue to be after the move, which is nevertheless an important source of new contacts. This fits in with the findings of Wenger, Dykstra, Melkas, and Knipscheer (2007), who identified five types of networks, the most successful of which in terms of avoiding loneliness and isolation was the *locally integrated social support network*. It is characterized by close relationships with local relatives, friends, and neighbors, and in line with our findings; it is usually based on long-term residence and active involvement in church and voluntary organizations. Short-distance movers can be considered long-term residents because they stay in their familiar neighborhood after the move.

However, we did not observe that long-distance movers benefited from doing volunteer work, which suggests that short-distance movers may find new neighbor relationships in the same organizations they have been active in before the move. Our respondents moved up to a maximum of 4 years before the interview and most had not developed any neighbor relationships in this longer time period. Residents who interact socially with their neighbors are more likely to be aware of local voluntary organizations and join them (Chavis & Wandersman, 1990). It takes time to find new organizations and develop personal relationships with other members. Long-distance movers might also be too busy getting settled in their new home to start new relationships (Magdol & Bessel, 2003). We noted that long-distance movers were most likely to move to rural areas with possibly fewer organizations close by, so they may have to find other ways to meet their new neighbors.

As to the other contextual conditions, feeling safe, degree of urbanization, and economic level all affected the new neighbor relationships long-distance movers started. This is what we expected. Moving to a rural area and feeling safe in the evening make it easier to start neighbor relationships, probably because there is a greater likelihood of meeting people outdoors. In an earlier study (Bloem et al., 2008a), we observed that the longer the distance of the move, the more former role relationships were lost, especially with neighbors. It follows that the need for contact with new neighbors is greater for people who move farther away because they have more of a gap in their neighbor network. Older people in rural areas have more contact with neighbors than those in urban areas (Thomése, 1998; Van der Poel, 1993; Wenger, 1995). The greater opportunities for meeting people in less urban areas apparently have a similar affect after moving, because older adults who move to a rural area meet new neighbors more easily. In addition, movers tend to move to areas with lower priced homes. Some older adults moved to similar homes in rural areas where housing prices are generally lower, neighborhoods are quieter, and there is less fear of crime. Clark, Deurloo, and Dieleman (2006) found that older adults especially improve their neighborhood quality by moving from cities to rural areas, although the quality of the house, such as the size, stays the same.

Personal conditions had very little affect on starting new neighbor relationships after a move. As to poor hearing, the findings are not surprising because our respondents are relatively young (average age = 70 years) and healthy; more than half (68%) indicated that they could hear well. Most of the older adults (94%) engaged in physical activities outside the home. We did not observe any differences in physical activity that could have affected the ability to meet new neighbors.

As to the proximity of adult children, we expected movers with a child nearby to start neighbor relationships more easily because children can help them settle in. However, the results showed that among movers, the proximity of adult children did not bear any relation to the number of new neighbor relationships. Also, non-movers with adult children nearby started fewer neighbor relationships than those with no children within a reasonable traveling distance. Having children nearby diminishes the need to socialize with one's neighbors, as was reported by Logan and Spitze (1994). They observed that people with more children nearby knew fewer of their neighbors and visited their neighbors less. Only families with small children develop neighbor relationships around the lives and needs of their children (Völker & Flap, 2007). Adult children living close to their parents may replace other neighbor relationships, especially if we consider network relationships beyond the superficial level. This apparently outweighs any advantage to movers of having children living close to their new home who could introduce them to their new neighbors.

Contrary to our expectations, we did not observe any effects of church membership. At church, one meets people with similar backgrounds and interests and there are opportunities to do volunteer work, but the effect was absent in all groups. Relationships based on seeing each other frequently in church may bear more characteristics of a close-knit friendship network rather than a meeting ground for new relationships (Lim & Putnam, 2010). The effects of church-related volunteer work may play a role in our analysis of volunteering in general.

We expected an effect of moving to adapted housing. There are more peers in adapted housing and the physical proximity of the apartments and frequently shared facilities in the buildings can facilitate interaction with the neighbors. However, the lack of an effect is in line with literature on the effects of the physical characteristics of housing on social interaction. Gifford (2007) reviewed the consequences of living in high-rise and multifamily apartment buildings and found that although residents in high-rise buildings encounter other residents, they tend to withdraw from further social interaction. This may also apply to our respondents, who apparently perceive neighbors in the building as acquaintances, who do not however meet with our definition as important neighbors.

In reviewing our findings, we should note that we have not examined any selection effects. For example, older adults who moved farther away attended church less and did less volunteer work after the move, but in this study we did not examine the situation before the move. Long-distance movers might be less linked to their neighborhood to begin with and thus are more willing to move farther away. We have not asked the older adults what their reasons were for moving because we confined ourselves to objective factors outside the individual. Where people live is linked in many ways to how they live and experience life, and further research could complement a longitudinal design with an open interview, enhancing our understanding of the decision-making process behind a move and how it informs the formation of relationships after the move (Sergeant, Ekerdt, & Chapin, 2008). We also did not disentangle bidirectional causal processes. For example, people might start new relationships in their neighborhood because they feel safe and go out more often or they might feel safe because they have become acquainted with people in the neighborhood. As we noted above, this also applies to older movers who do volunteer work and start new relationships because several studies have pointed out that formal volunteer work is dominated by people with greater resources (Minkler & Holstein, 2008; Broese van Groenou & Van Tilburg, 2010). Unlike many studies, we not only compared neighbor relationships before and after moves over various distances, we also compared changes in the neighbor relationships of movers to those of non-movers. This strengthens our ability to attribute the effects we observed to factors related to the move and not to more general processes of network change.

On the basis of the social convoy model of Kahn and Antonucci (1980), we assumed that role relationships like those with neighbors are the most changeable ones, and the results showed that this was particularly the case for long-distance movers. We also assumed that starting new relationships after a move depended on enduring properties of the person and the context, in line with Sias and Bartoo (2007). The results of the current study showed that contextual conditions in particular play a role, especially after long-distance moves. People who move shorter distances can benefit from opportunities they have created earlier by doing volunteer work in either their old or new neighborhood. Long-distance movers do not just select new homes, they also buy into a new environment that can help them start new neighbor relationships. In either case, new neighbors are added to the network after the move. Not only did the relationships of movers change, so did the neighbor relationships of non-movers.

As to the practical implications, these findings emphasize the resilience of older adults. Although many older adults prefer to age in place, moving might help them adapt to the next phase in their life. Moving does not seem to be as disruptive to neighbor relationships as is often assumed, and movers generally develop new relationships near their new home. Given the importance of contextual conditions, the older adults' initiatives might be supported by providing opportunities to meet people, creating meeting places in public spaces, and stimulating recreational or educational activities.

REFERENCES

- Atchley, R. C. (1989). A continuity theory of normal aging. *The Gerontologist*, 29, 183–190.
- Barker, J. C. (2002). Neighbors, friends, and other nonkin caregivers of community-living dependent elders. *Journal of Gerontology*, 57, 158–167.
- Bloem, B. A., Van Tilburg, T. G., & Thomése, G. C. F. (2008a). Changes in older Dutch adults' role networks after moving. *Personal Relationships*, 15, 465–478.
- Bloem, B. A., Van Tilburg, T. G., & Thomése, G. C. F. (2008b). Residential mobility in older Dutch adults: Influence of later life events. *International Journal of Aging and Later Life*, 1, 21–44.
- Blokland-Potters, T. (2003). *Urban bonds: Social relationships in an inner city neighborhood*. Cambridge, England: Polity.
- Brekelmans, J. (2008). *Nederlanders en hun burens [Dutch people and their neighbors]*. Amsterdam, The Netherlands: Synovate.
- Broese van Groenou, M. I., & Van Tilburg, T. G. (2010). Six-year follow-up on volunteering in later life: A cohort comparison in the Netherlands. *European Sociological Review*, 6, 1–11.
- Bukov, A., Maas, A., & Lampert, L. (2002). Social participation in very old age. *Journal of Gerontology*, 57, 510–517.

- Butler, E. W., McAllister, R. J., & Kaiser, E. J. (1973). The effects of voluntary and involuntary residential mobility on females and males. *Journal of Marriage and Family*, 35, 219–227.
- Chavis, D. M., & Wandersman, A. (1990). Sense of community in the urban environment: A catalyst for participation and community development. *American Journal of Community Psychology*, 18, 55–81.
- Clark, W. A. V., Deurloo, M. C., & Dieleman, F. M. (2006). Residential mobility and neighborhood outcomes. *Housing Studies*, 21, 323–342.
- Cornwell, B., Laumann, E. O., & Schumm, L. P. (2008). The social connectedness of older adults: A national profile. *American Sociological Review*, 73, 185–203.
- Crews, J. E., & Campbell, V. A. (2004). Vision impairment and hearing loss among community-dwelling older Americans: Implications for health and functioning. *American Journal of Public Health*, 94, 823–829.
- Curtis, J. E., Grabb, E. G., & Baer, D. E. (1992). Voluntary association membership in fifteen countries: A comparative analysis. *American Sociological Review*, 57, 139–152.
- Den Dulk, C. J., Van de Stadt, H., & Vliegen, J. M. (1992). Een nieuwe maatstaf voor stedelijkheid: De omgevingsadressendichtheid [A new measure for degree of urbanization: The address density of the surrounding area]. *Maandstatistiek van de Bevolking*, 40, 14–27.
- Dutch Council of Recreation (2003). *Recreatie op leeftijd [Leisure in later life]*. Den Haag, The Netherlands: Stichting Recreatie, Kennis-en Innovatiecentrum.
- Foster, S., & Giles-Corti, B. (2008). The built environment, neighborhood crime and constrained physical activity: An exploration of inconsistent findings. *Preventive Medicine*, 47, 241–251.
- Gifford, R. (2007). The consequences of living in high-rise buildings. *Architectural Science Review*, 50, 2–17.
- Gray, A. (2008). The social capital of older people. *Aging and Society*, 29, 5–31.
- Hampton, K. N. (2007). Neighborhoods in the network society: The e-Neighbors study. *Communication & Society*, 10, 714–748.
- Hipp, J., & Perrin, A. J. (2009). The simultaneous effect of social distance and physical distance on the formation of neighborhood ties. *City & Community*, 8, 5–25.
- Huisman, M., Poppelaars, J., Van der Horst, M., Beekman, A. T. F., Brug, J., Van Tilburg, T. G., & Deeg, D. J. H. (2011). Cohort profile: The Longitudinal Aging Study Amsterdam (LASA). *International Journal of Epidemiology*, 40, 868–876.
- Isham, J., Kolodinsky, J., & Kimberly, G. (2006). The effects of volunteering for nonprofit organizations on social capital formation: Evidence from a statewide survey. *Nonprofit and Voluntary Sector Quarterly*, 35, 367–383.
- Kaal, H., Vanderveen, G., & McConnell, W. (2008). Een postcodegebied is de buurt niet: Het gebruik van buurtvragen in (criminologisch) surveyonderzoek [A postcode area is not the neighborhood: The usage of neighborhood questions in (criminological) survey research]. *Sociologie*, 4, 371–394.
- Kahn, R. L., & Antonucci, T. C. (1980). Convoys over the life course: Attachment, roles, and social support. *Life Span Development*, 3, 235–286.
- Knipscheer, C. P. M., De Jong Gierveld, J., Van Tilburg, T. G., & Dykstra, P. A. (1995). *Living arrangements and social networks of older adults*. Amsterdam, The Netherlands: VU University Press.

- Lamme, S. P., Dykstra, P. A., & Broese van Groenou, M. I. (1996). Rebuilding the network: New relationships in widowhood. *Personal Relationships*, 3, 337–349.
- Lelieveldt, H. (2004). Helping citizens help themselves: Neighborhood improvement programs and the impact of social networks, trust, and norms on neighborhood-oriented forms of participation. *Urban Affairs Review*, 39, 531–551.
- Lim, C., & Putnam, R. D. (2010). Religion, social networks, and life satisfaction. *American Sociological Review*, 75, 914–933.
- Litwak, E., & Longino, C. F., Jr. (1987). Migration patterns among the elderly: A developmental perspective. *The Gerontologist*, 27, 266–272.
- Litwak, E., & Szelenyi, I. (1969). Primary group structures and their functions: Kin, neighbors, and friends. *American Sociological Review*, 34, 465–481.
- Logan, J. R., & Spitze, G. (1994). Family neighbors. *The American Journal of Sociology*, 100, 453–476.
- Longino, C. F., Jr., Bradley, D. E., Stoller, E. P., & Haas III, W. H. (2002). Predictors of non-local moves among older adults: A prospective study. *Journal of Gerontology*, 63, 7–14.
- Magdol, L., & Bessel, D. R. (2003). Social capital, social currency, and portable assets: The impact of residential mobility on exchanges of social support. *Personal Relationships*, 10, 149–170.
- Mellor, D., Hayashi, Y., Stokes, M., Firth, L., Lake, L., Staples, M., et al. (2008). Volunteering and its relationship with personal and neighborhood well-being. *Nonprofit and Voluntary Sector Quarterly*, 38, 144–159.
- Minkler, M., & Holstein, M. B. (2008). From civil rights to civic engagement? Concerns of two older critical gerontologists about a “new social movement” and what it portends. *Journal of Aging Studies*, 22, 196–204.
- Pucher, J., & Buehler, R. (2008). Making cycling irresistible: Lessons from the Netherlands, Denmark and Germany. *Transport Reviews*, 28, 495–528.
- Pucher, J., & Dijkstra, L. (2003). Promoting safe walking and cycling to improve public health: Lessons from the Netherlands and Germany. *American Journal of Public Health*, 93, 1509–1516.
- Sampson, R. J. (2004). Networks and neighborhoods: The implications of connectivity for thinking about crime in the modern city. In H. McCarthy, P. Miller, & P. Skidmore (Eds.), *Network logic: Who governs in an interconnected world* (pp. 157–166). London, England: Demos.
- Sergeant, J. F., Ekerdt, D. J., & Chapin, R. (2008). Measurement of late-life residential relocation: Why are rates for such a manifest event so varied? *Journal of Gerontology*, 63, 92–98.
- Sias, P., & Bartoo, H. (2007). Friendship, social support, and health. In L. L'Abate (Ed.), *Low-cost approaches to promote physical and mental health* (pp. 455–472). New York, NY: Springer.
- Silverman, R. A., & Kennedy, L. W. (1985). Loneliness, satisfaction and fear of crime: A test for non-recursive effects. *Canadian Journal of Criminology*, 27, 1–14.
- Smith, M. E. (2010). The archaeological study of neighborhoods and districts in ancient cities. *Journal of Anthropological Archaeology*, 29, 137–154.
- Sooman, A., & McIntyre, S. (1995). Health and perceptions of the local environment in socially contrasting neighborhoods in Glasgow. *Health & Place*, 1, 15–26.

- Starker, J. E., Morgan, D. L., & March, S. (1993). Analyzing change in networks of personal relationships. *Advances in Personal Relationships*, 4, 229–260.
- Statistics Netherlands. (1991). *De landelijke wijk-en buurtindeling 1991 [The national precinct and neighborhood demarcation]*. Voorburg, The Netherlands: Centraal Bureau voor de Statistiek.
- Thomése, G. C. F. (1998). *Buurtnetwerken van ouderen: Een sociaal-wetenschappelijk onderzoek onder zelfstandig wonende ouderen in Nederland [Neighboring networks of older adults: A social scientific research among independently living older adults in the Netherlands]*. (Unpublished doctoral dissertation). Amsterdam, The Netherlands: VU University Amsterdam.
- Thomése, G. C. F., & Van Tilburg, T. G. (2000). Neighboring networks and environmental dependency: Differential effects of neighborhood characteristics on the relative size and composition of neighbor networks in the Netherlands. *Aging & Society*, 20, 55–78.
- Thomése, G. C. F., Van Tilburg, T. G., & Knipscheer, C. P. M. (2003). Continuation of exchange with neighbors in later life: The importance of the neighborhood context. *Personal Relationships*, 10, 535–550.
- Unger, D. G., & Wandersman, A. (1985). The importance of neighbors: The social, cognitive, and affective components of neighboring. *American Journal of Community Psychology*, 13, 139–169.
- Van Busschbach, J. T. (1996). *Uit het oog, uit het hart? Stabiliteit en verandering in persoonlijke relaties [Out of sight, out of mind? Stability and change in personal relations]*. (Unpublished doctoral dissertation). Groningen, The Netherlands: University of Groningen.
- Van der Poel, M. G. M. (1993). *Personal networks: A rational-choice explanation of their size and composition*. Lisse, The Netherlands: Swets & Zeitlinger.
- Van Lenthe, F. J., Brug, J., & Mackenbach, J. P. (2005). Neighborhood inequalities in physical inactivity: The role of neighborhood attractiveness, proximity to local facilities and safety in the Netherlands. *Social Science & Medicine*, 60, 763–775.
- Van Tilburg, T. G. (1998). Losing and gaining in old age: Changes in personal network size and social support in a four-year longitudinal study. *Journal of Gerontology*, 53, 313–323.
- Van Willigen, M. (2000). Differential benefits of volunteering across the life course. *Journal of Gerontology*, 55, 308–318.
- Völker, B. G. M., & Flap, H. (2007). Sixteen million neighbors: A multilevel study of the role of neighbors in the personal networks of the Dutch. *Urban Affairs Review*, 43, 256–284.
- Wellman, B., Carrington, P., & Hall, A. (1988). Networks as personal communities. In B. Wellman & S. D. Berkowitz (Eds.), *Social structures: A network approach* (pp. 130–184). Cambridge, England: Cambridge University Press.
- Wenger, G. C. (1991). A network typology: from theory to practice. *Journal of Aging Studies*, 5, 147–162.
- Wenger, G. C. (1995). A comparison of urban with rural support networks: Liverpool and North Wales. *Aging and Society*, 15, 59–81.
- Wenger, G. C., Dykstra, P. A., Melkas, T., & Knipscheer, C. P. M. (2007). Social embeddedness and late life parenthood: Community activity, close ties, and support networks. *Journal of Family Issue*, 28, 1419–1456.